

### **REMARKS**

Claims 9-11, 14-16, 19, and 22 are amended, claims 17 and 18 are cancelled, and claims 9-11, 13-16, and 19-22 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application.

### **Examiner Interview**

Applicant would like to thank Examiner Györfi for discussing this application with Applicant's attorney, Chris Culberson, during a telephonic interview on July 16, 2008.

During this interview, proposed amendments to the independent claims were discussed, as was the subject matter discussed in the references cited herein. With respect to the § 101 rejections, the Examiner agreed that the proposed amendments would obviate the rejections. While no specific agreement was reached as to the amendments with respect to the references, Applicant has considered the Examiner's comments and suggestions in crafting this response.

In view of this discussion, Applicant respectfully requests that the Examiner contact Applicant's attorney to discuss this application before issuing any subsequent rejections.

### **Claim Objections**

Claims 21-22 stand objected to for allegedly being improperly labeled. Applicant has relabeled the claims to obviate this objection. Accordingly, Applicant respectfully requests that the objections to claims 21-22 be withdrawn.

### **§ 101 Rejections**

Claims 9-11, 13-16, and 19-22 stand rejected under 35 U.S.C. § 101 for reciting nonstatutory subject matter. Without conceding the propriety of these rejections, Applicant has amended specific claims as discussed during the

Examiner interview to obviate the rejections. Accordingly, Applicant respectfully requests that the § 101 rejections be withdrawn.

### **§ 103 Rejections**

Claims 9-11, 13-16, and 19-22 stand rejected under 35 U.S.C. § 103(a) for allegedly being obvious over U.S. Patent No. 6,098,079 to Howard in view of the Freenet publication.

### **The Claims**

**Independent claim 9** is amended, and as amended recites in a distributed file system that stores encrypted files across multiple computers, a method comprising [added language indicated in underline]:

- modifying one or more of the encrypted files;
- computing a hash value of each modified encrypted file, one or more of the modified encrypted files comprising file data and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the file and a structure to access the one or more hashes of the file;
- collecting the hash values into a group;
- computing a hash value of the group; and
- digitally signing the hash value of the group of hash values.

Claim 9 stands rejected as being obvious over Howard in view of Freenet. While Applicant respectfully disagrees with this rejection, Applicant has nonetheless amended claim 9 to clarify its recited subject matter. Applicant submits that a prima facie case of obviousness with respect to amended claim 9 cannot be established based on the combination of Howard and Freenet for at least the reason that the cited references fail to disclose or suggest all of the features recited in claim 9.

For example, neither of the references disclose or suggest the feature of:

- one or more of the modified encrypted files comprising file data and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the file and a structure to access the one or more hashes of the file.

In making out the rejection of dependent claim 10 (now amended), the Office cited to Howard as allegedly disclosing subject matter similar to the feature of claim 9 mentioned above. The Office cites to Howard at Figs. 3-6 and at column 5, lines 1-60. While Howard does discuss “hash codes of versions of files”, these hash codes are maintained in a journal file separate from the actual files themselves. Further, the actual files that are hashed (which are not the journal files) do not include “a structure to access the one or more hashes of the file”. These features are missing from the cited references.

Accordingly, and at least for these reasons, a prima facie case of obviousness with respect to claim 9 cannot be established based on the cited combination of references and claim 9 is allowable.

**Claims 10-11 and 13** depend from claim 9 and thus are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 9, are neither disclosed nor suggested in the references of record.

**Independent claim 14** is amended, and as amended recites one or more computer readable storage media comprising computer-executable instructions that, when executed, direct a computing device to [added language is indicated in underline]:

- modify individual files stored in a serverless distributed file system;
- divide one or more of the files into a plurality of data blocks;
- compute a hash value of each of the data blocks, one or more of the modified files comprising file data that includes the data blocks and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the data blocks and a structure to access the one or more hashes of the data blocks;
- collect the hash values into a group; and
- digitally signing the group of hash values.

Claim 14 stands rejected as being obvious over Howard in view of Freetnet. While Applicant respectfully disagrees with this rejection, Applicant has nonetheless amended claim 14 to clarify its recited subject matter. Applicant submits that a prima facie case of obviousness with respect to amended claim 14 cannot be established based on the combination of Howard and Freetnet for at least the reason that the cited references fail to disclose or suggest all of the features recited in claim 14.

For example, neither of the references disclose or suggest the features of:

- divide one or more of the files into a plurality of data blocks;
- compute a hash value of each ~~of the data blocks~~ modified file, one or more of the modified files comprising file data that includes the data blocks and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the data blocks and a structure to access the one or more hashes of the data blocks;

As discussed above, the hash codes discussed in Howard are maintained in a journal file separate from the actual files themselves. The above mentioned features of claim 14 are missing from the cited references. Accordingly, and at least for this reason, a prima facie case of obviousness cannot be established with respect to claim 14 based on the cited combination of references and claim 14 is allowable.

**Claims 15-16** depend from claim 14 and thus are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 14, are neither disclosed nor suggested in the references of record.

**Independent claim 19** is amended, and as amended recites a method comprising [added language is indicated in underline]:

- storing representations of modifications made to multiple files stored in a distributed file system such that each said modification has a corresponding said representation, one or more of the multiple files comprising a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more of the representations of modifications made to the file and a structure to access the one or more representations;
- storing a representation of a collection of the representations of the modifications; and
- storing a single digital signature covering at least part of the representations to indicate that the modifications were made by a user with the signature, the single digital signature providing file authentication information for each of the multiple files.

Claim 19 stands rejected as being obvious over Howard in view of Freenet. While Applicant respectfully disagrees with this rejection, Applicant has nonetheless amended claim 19 to clarify its recited subject matter. Applicant submits that a prima facie case of obviousness with respect to amended claim 19 cannot be established based on the combination of Howard and Freenet for at least

the reason that the cited references fail to disclose or suggest all of the features recited in claim 19.

For example, and as discussed above, neither of the references disclose or suggest the feature of:

- one or more of the multiple files comprising a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more of the representations of modifications made to the file and a structure to access the one or more representations

This feature is simply missing from the cited references. Accordingly, and at least for this reason, a prima facie case of obviousness cannot be established with respect to claim 19 based on the cited combination of references and claim 19 is allowable.

**Claims 20-21** depend from claim 19 and thus are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 19, are neither disclosed nor suggested in the references of record.

### **Conclusion**

Claims 9-11, 13-16, and 19-22 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Examiner is requested to contact the undersigned attorney to resolve the issue.

Respectfully Submitted,

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